

THE OLD WORLD MEMBRACIDÆ

BY FREDERIC W. GODING

(Continued from Vol. XLII, p. 480)

Tricentrus

Stål, *Analeet. Hemip.* p. 387. (1866); *Taliopa* Buckton, *Tr. Linn. Soc. Lond. Zool. ix*, p. 334 (1905).

KEY TO SPECIES

- 1(8). Suprahumeral projecting forward, tips acute; pronotum brown, median carina usually percurrent weak or obsolete anteriorly, posterior process unicarinate.
- 2(7). Apex of posterior process passing apex of clavus, suprahumeral as long or longer than the intervening space; legs brown.
- 3(6). Suprahumeral twice as long as the intervening space, apex of posterior process just passing apex of clavus; tegmina smoky hyaline.
- 4(5). Suprahumeral slightly diverging almost parallel, obliquely inclined forward, tips recurved; tegmina with brown spot on apical angle; tarsi ferruginous; ocelli equidistant; long. excl. corn. 5.3, exp. corn. 3 mm. **acuticornis**
- 5(4). Suprahumeral strongly diverging, porrect, tips straight; apical margin of tegmina brownish; tarsi yellowish; ocelli nearer to the eyes; long. excl. corn. 4.5, exp. corn. 3 mm. **projectus**
- 6(3). Suprahumeral robust, strongly porrect, long as the intervening space, widely diverging, tips subacute; median carina of pronotum strong; posterior process heavy, gibba at base, dorsum arcuate, apex far passing apex of clavus; tegmina whitish opaque, veins nodulose; long. excl. corn. 4.5 mm. **paradoxus**
- 7(2). Apex of posterior process not passing apex of clavus, dorsum straight, tip black, suprahumeral slender, acute, slightly inclined forward, median carina of pronotum obsolete anteriorly; tegmina iridescent hyaline, costal veins near tips swollen and finely spined; tibiae and tarsi white; 5.3 × 3 mm. **albipes**
- 8(1). Suprahumeral not projecting forward.
- 9(46). Suprahumeral horizontal or subhorizontal.
- 10(29). Apex of posterior process not passing the apex of clavus.
- 11(24). Posterior process unicarinate.
- 12(13). Suprahumeral almost as long as the intervening space, tips recurved, acute, posterior process slender; ferruginous, pubescent; tegmina hyaline, base piceous; 6-7 mm. **pallidus**

- 13(12). Length of suprahumeral not more than half width of intervening space.
- 14(19). Suprahumeral a fourth or less the width of the intervening space, median carina of pronotum percurrent.
- 15(18). Suprahumeral aborted, hardly a sixth the width of intervening space, posterior process straight gradually acuminate; black.
- 16(17). Shining, tawny pubescent; median carina of pronotum weak anteriorly, humeral conical, prismatic, apex of posterior process straight, not reaching apex of clavus; tegmina lurid, base black followed by white band; tarsi piceous; 5-6 mm. **finitimus**
- 17(16). Dull, sparsely pubescent; median carina of pronotum strongly percurrent, suprahumeral wider than high, not extended far as tips humeral, apex of posterior process elevated reaching apex of clavus, tarsi yellow; 4×1.7 , lat. int. hum. 2.2 mm. **brevicornis**
- 18(15). Suprahumeral distinct the length equal to a fourth the intervening space, posterior process sinuate, base depressed, swollen and depressed towards apex; entirely reddish brown, tegmina reddish hyaline; $4-6 \times 3.5-4.5$ mm. **fairmairei**
- 19(14). Length of suprahumeral equal to about half intervening space; pronotum brown, legs yellowish.
- 20(23). Tegmina smoky hyaline without darker markings.
- 21(22). Pronotum slightly pubescent, median carina weak anteriorly, apex of posterior process reaching (?) apex of clavus; 5-6 mm. **ferrugineus**
- 22(21). Pronotum distinctly yellow pubescent, median carina absent on metopidium, apex of posterior process much shorter than apex of clavus; veins of tegmina pubescent; 5-5.5 mm. **garampinus**
- 23(20). Tegmina subhyaline, brown and yellow clouded and spotted; pronotum yellow pubescent, no median carina on metopidium, apex of posterior process shorter than apex of clavus; 3-4.5 mm. **koshunensis**
- 24(11). Posterior process tricarinate, apex not passing apex of clavus; median carina percurrent.
- 25(26). Suprahumeral about as long as the intervening space; black, tarsi ochraceous; tegmina dark ochraceous, basal angular area black; $4-4.5 \times 3$ mm. **pronus**
- 26(25). Length of suprahumeral equal to a fourth the intervening space, broad, front margin strongly rounded, carina on upper surface behind middle.
- 27(28). Ferruginous the posterior apex black, pilose legs testaceous; tegmina pale bronze brown, base black; $4.5-5 \times 2.5-3$ mm. **gibbosulus**
- 28(27). Black, not pilose, legs brownish; tegmina pale ochraceous hyaline with a broad red basal fascia; 7×4 mm. **tinctoria**

- 29(10). Apex of posterior process passing apex of clavis, tricarinate.
- 30(33). Suprahumeral long as the intervening space; median carina of pronotum percurrent, apex of posterior process just passing apex of clavus.
- 31(32). Pronotum black, pilose, legs ochraceous; apex of posterior process elevated; tegmina subhyaline; basal area black; 5×3 mm. *euschistus*
- 32(31). Pronotum and legs testaceous, face, tips of suprahumeral and posterior process black, the latter straight; tegmina subhyaline, basal angle fuscous; 6×4 mm. *bovillus*
- 33(30). Suprahumeral not more than half as long as the intervening space.
- 34(45). Posterior process unicarinate.
- 35(38). Median carina absent on metopidium suprahumeral long as the intervening space, posterior process gradually acute apex just passing apex of clavus; legs brown.
- 36(37). Black, punctate, lightly pubescent, posterior process weakly arcuate; tegmina reddish hyaline, base black, apical margins fuscous; 6.5×4.6 mm. *capreolus*
- 37(36). Brown, shining, not punctate or pubescent; suprahumeral slender, tips black, posterior process straight, margins and decurved apex black; tegmina translucent hyaline, base brown; body black; 6.8×4 mm. *nitidus*
- 38(35). Median carina of pronotum percurrent, usually weak on metopidium.
- 39(44). Apex of posterior process just passing apex of clavus.
- 40(43). Suprahumeral half as long as the intervening space; punctate.
- 41(42). Piceous, legs tawny; suprahumeral and posterior process straight; tegmina lurid hyaline, base piceous; 5-6 mm. *femoratus*
- 42(41). Black, slightly pubescent, legs ferruginous; suprahumeral strongly recurved, apex of posterior process elevated; tegmina smoky hyaline, base black, outer margins narrowly ferruginous; 4.6×2.2 mm. *brevis*
- 43(40). Suprahumeral less than a fourth width of the intervening space; brown, shining, not punctate or pubescent; basal half of posterior process broad, apical half slender; tegmina smoky hyaline, base brown; 5.7×3.3 mm. *fulgidus*
- 44(39). Apex of posterior process strongly decurved reaching almost to tips of tegmina, basal half heavy, apical half abruptly slender; tips of suprahumeral and of humeral equal; pronotum brown, legs reddish, white granule at each knee; tegmina fuscohyaline, base opaque; 6×3 mm. *decurvatus*
- 45(34). Posterior process tricarinate, basal half heavy, apical half attenuate, suprahumeral about half as long as the intervening space, strongly recurved; pronotum black, median carina weakly

- percurrent, legs ferruginous; tegmina hyaline, base black; 5.2 × 3 mm. **papuaensis**
- 46(9). Suprahumeral more or less oblique.
- 47(70). Apex of posterior process not passing apex of clavus.
- 48(63). Posterior process unicarinate.
- 49(54). Suprahumeral as long or longer than the intervening space.
- 50(53). Apex of posterior process much shorter than apex of clavus; pronotum brown, median carina weakly percurrent.
- 51(52). Suprahumeral obliquely erect, tips recurved; not pilose; tegmina pale bronze hyaline, basal area fuscous brown; 5.5 × 3 mm. **bifurcus**
- 52(51). Suprahumeral moderately oblique, recurved; densely long pilose; tegmina yellowish hyaline, brown spot on middle of costa; 6 × 4 mm. **kuyanianus**
- 53(50). Apex of posterior process reaching apex of clavus, slender, suprahumeral substraight; pronotum pubescent; tegmina smoky hyaline, base brown, costal area pilose; 5 × 3 mm. **banguensis**
- 54(49). Suprahumeral not more than half as long as the intervening space, median carina of pronotum weakly percurrent.
- 55(58). Dorsum of posterior process lightly arcuate, suprahumeral weakly oblique; black, pubescent; ocelli equidistant.
- 56(57). Tegmina brown, translucent, base black, legs brown; 5.6 × 3.2 mm. **nigrofrontis**
- 57(56). Tegmina hyaline, base black, apical area smoky; tarsi fuscous; 4.5 × 2.7 mm. **pinguidorsis**
- 58(55). Dorsum of posterior process not arcuate.
- 59(62). Apex of posterior process straight, not elevated.
- 60(61). Brownish testaceous, pilose, paler posteriorly, legs ferruginous; suprahumeral short, not extended even with tips of humeral, strongly recurved; tegmina fusco-hyaline, base and tips narrowly brown; 4.5 × 1.9 mm. **attenuatus**
- 61(60). Black, not pilose, tarsi ferruginous; tegmina brown, base black; 5-6 mm. **caliginosus**
- 62(59). Posterior process robust, apex elevated, suprahumeral broad, front margin rounded, tips recurved, ridged on upper surface behind middle; black, pilose, legs piceous; tegmina dull brown hyaline, base black, large subbasal creamy white spot; 4 × 2.5 mm. **albomaculatus**
- 63(48). Posterior process tricarinate.
- 64(67). Suprahumeral about as long as the intervening space, strongly recurved, tips obtuse, median carina of pronotum percurrent; Tegmina with a pale transverse subbasal fascia.
- 65(66). Black, pilose, tarsi ochraceous; front margin of suprahumeral rounded, posterior process robust; tegmina pale bronze ochraceous, base black; 5 × 3 mm. **bicolor**

- 66(65). Brown, pilose, legs piceous; tegmina subhyaline, basal angular area brown; 7×3.5 mm. **repandus**
- 67(64). Suprahumeral not more than half as long as the intervening space.
- 68(69). Black, pubescent, legs yellowish; suprahumeral prismatic, curved, less than half the width between bases, tips recurved; tegmina yellowish hyaline, base narrowly black, veins hairy; 6 mm. **basalis**
- 69(68). Pronotum and legs testaceous; suprahumeral slender, tips black, apex of posterior process black not reaching apex of clavus; tegmina subhyaline, base narrowly ochraceous, veins sparingly granulose; 6×3 mm. **assamensis**
- 70(47). Apex of posterior process passing apex of clavus.
- 71(96). Posterior process unicarinate.
- 72(91). Suprahumeral as long or longer than the intervening space.
- 73(78). Apex of posterior process elevated, median carina of pronotum percurrent, suprahumeral strong; pubescent.
- 74(77). Pronotum brown, suprahumeral long as the intervening space; ocelli equidistant.
- 75(76). Long, narrow, bases of suprahumeral not widely separated; posterior process narrow; tegmina hyaline, base brown; legs ferruginous; 7.5×4 mm. **æquicornis**
- 76(75). Robust, suprahumeral widely separated at bases, acuminate, tips recurved, posterior process heavy, tip abruptly acute; tegmina smoky hyaline, base black, veins hairy; legs brown; 7×4.2 mm. ♀ **robustus**
- 77(74). Pronotum black, legs dark brown; ocelli nearer to eyes; suprahumeral one and one-half times longer than the intervening space, long, tips acute, decurved; posterior process lightly elevated at base and middle, apex passing far beyond apex of clavus; tegmina smoky hyaline, base black, outer margin black, veins with indistinct black nodules; 6.8×3.5 mm. **amurensis**
- 78(73). Apex of posterior process not lightly elevated.
- 79(88). Black, pubescent.
- 80(85). Median carina of pronotum percurrent usually weak anteriorly; posterior process straight; legs brown.
- 81(84). Suprahumeral weakly oblique, apex of posterior process straight.
- 82(83). Tegmina bronze hyaline, base black; suprahumeral ridged on upper surface, posterior process heavy; ocelli equidistant; 5.8×3.5 mm. **bakeri**
- 83(82). Tegmina gray vitreous, base black; suprahumeral long, acute, posterior process attenuated; 6-7 mm. **acer**
- 84(81). Suprahumeral almost erect, slender, recurved, apex of posterior process decurved; ocelli equidistant; tegmina, translucent bronze, base black, veins transparent near base; 6.7×4 mm. **panayensis**

- 85(80). Median carina absent on metopidium, front margin suprahumeral rounded, posterior process very narrow (possibly should be placed in *Tricentrodus*), sinuate; ocelli nearer to eyes; tegmina fuscohyaline, costal and apical margins clouded, two rows of hairs on veins; 6.5×3.7 mm. **pilinervosus**
- 86(79). Brown, pubescent, median carina of pronotum percurrent; ocelli equidistant.
- 87(90). Tegmina smoky hyaline; posterior process slender.
- 88(89). Pronotum and legs golden brown, suprahumeral slender, tips blunt, posterior process slender, straight, tip darker; base and tips of tegmina brown; 5.5×3.5 mm. **brunneus**
- 89(88). Pronotum dark brown, legs paler, suprahumeral heavy, tips acute, posterior process slender, tip decurved; base of tegmina narrowly black; 7.5×3.7 mm. **bergeri**
- 90(87). Tegmina dark brown, almost opaque, base black; (see 76, (75), ♀, but darker, suprahumeral shorter, and tip of posterior process straight); 6×3 mm. ♂ **robustus**
- 91(72). Suprahumeral about half as long as the intervening space; median carina of pronotum obsolete or absent on metopidium; ocelli equidistant.
- 92(93). Brown, pubescent, two dark basal spots, median carina absent on metopidium; humeral moderately prominent; suprahumeral normally situated, broad, tips rounded; posterior process heavy, dorsum arcuate, tip just passing apex of clavus; tegmina hyaline, base brown, tips pointed, veins indistinct; 4×2.8 mm. **altidorsus**
- 93(92). Black, median carina obsolete on metopidium; tegmina smoky hyaline, base black; legs yellowish.
- 94(95). Strongly pilose; suprahumeral slender, abnormally arising from extreme dorso-lateral margins of pronotum a central ridge on the upper surface; humeral large, auriculate; posterior process slender, depressed at middle; nodule at each knee; 7×4.8 mm. **plicatus**
- 95(94). Slightly pubescent; suprahumeral arising normally, humeral not prominent; posterior process straight; 5-6 mm. ♂ **congestus**
- 96(71). Posterior process tricarinate; pubescent or pilose.
- 97(128). Suprahumeral long as or longer than the intervening space.
- 98(105). Suprahumeral distinctly longer than width between bases, tips acute; median carina of pronotum percurrent; ocelli equidistant.
- 99(102). Apex of posterior process just passing apex or clavus, suprahumeral large, strongly recurved; tegmina sordid hyaline, base narrowly black.
- 100(101). Suprahumeral distinctly longer than the intervening space, posterior process slender, raised at base, depressed at middle;

- metopidium with two black spots, legs yellowish; corium with a brown apical spot; 6.6×3.7 mm. **curvicornis**
- 101(100). Suprahumeral broad, a little longer than width between their bases, posterior process straight, tip abruptly acute; legs ferruginous; 7×4 mm. **maacki**
- 102(99). Apex of posterior process passing far beyond apex of clavus, upper surface of suprahumeral ridged, tips recurved.
- 103(104). Dark brown, slender; suprahumeral slender, distinctly longer than width between their bases, posterior process slender, sinuate, tip decurved; tegmina sordid hyaline, base brown followed by a white band behind this a broad brown band; 7×4 mm. **fasciipennis**
- 104(103). Black, legs brown; suprahumeral strong, heavy, more than twice longer than width between their bases, posterior process slender, straight; tegmina bronze hyaline, base black, costal margin brown; 7.2×4.4 mm. **forticornis**
- 105(98). Suprahumeral equal in length to the intervening space.
- 106(113). Apex of posterior process just passing apex of clavus.
- 107(110). Brown or yellow, pubescent; ocelli equidistant; posterior process straight.
- 108(109). Castaneous; median carina of pronotum distinct, suprahumeral very heavy, broad, front margin rounded, upper surface ridged near hind margin, tips subacute, posterior process heavy, gradually acute, tip dark brown; tegmina brownish hyaline, base brown; 6.8×5 mm. **laticornis**
- 109(108). Dark yellow, two dark spots on base of metopidium; suprahumeral brown, recurved, posterior process slender, apical half brown; tegmina hyaline, base brown; 5.4×3 mm. **brunneicornis**
- 110(107). Black, legs ferruginous; suprahumeral recurved, tips acute, posterior process straight.
- 111(112). Tegmina smoky hyaline, base black, exterior apical veins pilose; tips of humeral blunt, median carina of pronotum obsolete on metopidium; ocelli equidistant; (is this the male of *congestus*?); 6.5×3.8 mm. **suluensis**
- 112(111). Tegmina hyaline, base broadly black, costal margin brown; median carina of pronotum weakly percurrent, tips of humeral acute; upper surface of suprahumeral ridged; ocelli nearer to the eyes; 4.6×3 mm. **albescens**
- 113(106). Apex of posterior process passing far beyond apex of clavus; ocelli equidistant; median carina of pronotum percurrent.
- 114(121). Brown, pubescent.
- 115(120). Apex of posterior process not curved upwardly.
- 116(119). Apex of posterior process straight, not decurved.
- 117(118). Abdomen brown, legs yellow, tip of posterior process blackish; tegmina hyaline, base narrowly brown; 7.2×5.2 mm. **manilænsis**

- 118(117). Abdomen black, legs brown; upper surface of suprahumeral ridged near hind edge; tegmina pale brownish hyaline, base brown; 7 mm. **divergens**
- 119(116). Apex of posterior process decurved, slender, suprahumeral slender, upper surface ridged; densely pubescent; legs ferruginous; tegmina hyaline, base brown; 6.8×4.2 mm. **pubescens**
- 120(115). Posterior process slender, curved upwardly, tip dark brown, upper surface of suprahumeral ridged; pronotum and legs ferruginous; tegmina fusco-hyaline, base ferruginous; 6.5×4.6 mm. **ferruginosus**
- 121(114). Black, pubescent; suprahumeral more or less recurved.
- 122(127). Apex of posterior process straight.
- 123(126). Posterior process slender; tegmina with two discoidal cells.
- 124(125). Ocelli epuidistant; suprahumeral strongly recurved; tegmina smoky hyaline, base black, veins hairy; legs black or brown; 6.6×4.6 mm. **spininervis**
- 125(124). Ocelli nearer to the eyes; suprahumeral slender, spinelike, upper surface centrally ridged, tips recurved; legs pale brown; 6×5 mm. **spinicornis**
- 126(123). Posterior process heavy, robust, gradually acute; legs ferruginous; tegmina hyaline, base black, three discoidal cells, tips fuscous on costal margin, costal veins strongly pilose; 5.2×3 mm. **spinidorsis**
- 127(122). Posterior process heavy, tip decurved; suprahumeral strong, broad, hind edge bicarinate; humeral large, auriculate; legs black; tegmina ferruginous hyaline, base black; 7×5 mm. **nigris**
- 128(97). Suprahumeral not longer than half the intervening space.
- 129(132). Posterior process straight, tip not passing apex of clavus, median carina pereurrent, suprahumeral weakly oblique, tips recurved.
- 130(131). Black, legs ochraceous; suprahumeral slender, apical area of posterior process brown; ocelli equidistant; tegmina hyaline, basal area black followed by a white transverse band; $5-6 \times 3$ mm. **allabens**
- 131(130). Ochraceous, anterior disk, front margins of suprahumeral and apex of posterior process with legs brown; suprahumeral broad, with posterior process robust; tegmina subhyaline, basal area brown enclosing an ochraceous spot; 6×3 mm. **resectus**
- 132(129). Posterior process weakly sinuate, apex passing far beyond apex of clavus, suprahumeral distinctly oblique; pronotum and legs brown.
- 133(134). Pronotum brown, sparingly pubescent, two smooth spots on metopidium, tips of suprahumeral and posterior process black

the latter gradually acute; tegmina vinaceous hyaline, iridescent, base black; ocelli nearer to the eyes; 5.4×3 mm.

nigroapicalis

- 134(133). Pronotum uniform golden brown, densely pubescent, supra-humerals very slender; tegmina smoky hyaline, base narrowly brown, exterior apical margin brownish; ocelli equidistant; 6×3.6 mm. **attenuicornis**

LIST OF SPECIES

- acuticornis** Funkhouser, Phil. Jour. Sci. xv, p. 22, figs. 5, 6. (1919). Panay, Culasi, Luzon, Philippines; Ft. de Kock, Sumatra.
- projectus** Distant, Faun. Brit. Ind. iv, p. 55, fig. 48. (1908). Tenasserim, Myitta, Calcutta, Tolly Ganj. India; Moulmein, Burma; Neuva Viscaya, Imugan, Luzon, Philippines.
- paradoxus** Lethierry, Ann. Soc. Ent. Belg. xix, p. 81, (page 5 in separata). (1876); Lindberg, Noc. Ent. iv, p. 23, figs. 1, 6. (1927). Spasskaja, Ussuri R. Vladivostok, Siberia.
- albipes** Funkhouser, Suppl. Ent. xv, p. 4, figs. 6, 7. (1927). Fort de Kock, Singapore, Sumatra.
- pallidus** Walker, List Hom. B. M. p. 625. (1851). Unknown.
- finitimus** Walker, List Hom. B. M. p. 628. (1851). Hongkong, China.
- brevicornis** Funkhouser, Jour. Sts. Br. Roy. Asiat. Soc. p. 214, figs. 7, 8. (1920). Sandakan, Borneo.
- fairmairei** Stål, Eug. Resa Omk. j. p. 284. (1859). Funkhouser, Biol. Memb. pl. 35, fig. 14. (1917). Phil. Jour. Sci. x, p. 367, figs. 1, 2. (1915). Lingn. Sci. Jour. vii, pl. 14, fig. 1. (1929). idem xv, p. 20, pl. 1, fig. 4. (1919). Los Baños, Rizal, Laguna, Montalban, Pæte, Panay, Culasi, Luzon, Philippines; South India; Malacca.
- sobrinus** Stål, Eug. Resa Omk. J p. 285. (1859). Java.
- ferrugineus** Walker, Jour. Linn. Soc. x, p. 187. (1868). New Guinea.
- garampinus** Matsumura, Annot. Zool. Jap. viii, p. 19. (1912). Koshun, Formosa.
- koshunensis** Matsumura, Annot. Zool. Jap. viii, p. 19. (1912). Shinsha, Koshun, Formosa.
- akonis** Matsumura, Annot. Zool. Jap. vii, p. 20. (1912). Ako, Koshun, Shinsha, Shirin, Hokuto, Formosa.
- pronus** Distant, Faun. Brit. Ind. vi, App. p. 166. (1916). Kavalai, Cochin State, India.
- gibbosulus** Walker, Ins. Saund. Hom. p. 80. (1858); Distant, Faun. Brit. Ind. iv, p. 54, fig. 46. (1908). Hindostan, India; Penang Is., Singapore, Sumatra; Kudat, Bettotan, Samawang, Borneo.
- flavipes** Melichar, Notes Leyden Mus. xxxvi, p. 112. (1914). Penang Is., Sumatra; Banjuwangi, Java.
- tinctoria** Buckton, Tr. Linn. Soc. Lond. Zool. ix, p. 334, pl. 22, fig. 4. (1905). Bangalore, India; Manila, Philippines. (?).

- fairmairei* Distant, Faun. Brit. Ind. iv, p. 58. (1908). Malacca; Philippines. (?).
- cuschistus* Distant, Faun. Brit. Ind. vi, App. p. 164. (1916). Tenasserim, Myitta, Bombay, India.
- bovillus* Distant, Faun. Brit. Ind. vi, App. p. 164. (1916). Moulmein, Burma.
- capreolus* Walker, List Hom. B. M. p. 627. (1851); Funkhouser, Biol. Memb. pl. 35, fig. 19. (1917); Phil. Jour. Sci. x, p. 386, pl. 2, fig. 10. (1915). Mt. Banahao, Laguna, Pæte, Darai, Luzon, Philippines.
- nitidus* Funkhouser, Suppl. Ent. xv, p. 2, figs. 1, 2. (1927). Ft. de Kock, Sumatra.
- femoratus* Walker, Jour. Linn. Soc. x, p. 186. (1868). Macassar, Patimurang, Loka, Wawokarang, Celebes.
- brevis* Funkhouser, Jour. N. Y. Ent. Soc. xxii, p. 239. (1914) Banguay Is., Kudat, Borneo; Barkuda Is., Chilka Lake, Ganjam, India.
- fulgidus* Funkhouser, Phil. Jour. Sci. xl, p. 122, pl. 2, figs. 19, 20. (1929). Pontianak, Borneo.
- decurvatus* Funkhouser, Jour. N. Y. Ent. Soc. xxii, p. 238, pl. 6, fig. 8. (1914). Dutch New Guinea.
- papuensis* Funkhouser, Phil. Jour. Sci. xl, p. 122, pl. 2, figs. 21, 22. (1929). Laloka, Papau, New Guinea.
- bifurcus* Distant, Faun. Brit. Ind. vi, App. p. 165, fig. 121. (1916). Darjiling, Behar, India.
- kuyanianus* Matsumura, Annot. Zool. Jap. viii, p. 19. (1912). Tappan. Horisha, Shako, Ako, Hashun, Formosa; Hokkaido, Honshu, Japan.
- banguensis* Funkhouser, Jour. N. Y. Ent. Soc. xxii, p. 238, pl. 6, fig. 9. (1914). Banguay Is., Kinabalu, Borneo; Perak, Sumatra.
- nigrofrontis* Funkhouser, Phil. Jour. Sci. xl, p. 125, pl. 2, figs. 27, 28. (1929). Penag Is., Sumatra.
- pinguidorsis* Funkhouser, Rec. Aust. Mus. xv, p. 308, pl. 26, figs. 9, 10. (1927). Broken Hill, N. S. W., Australia.
- attenuatus* Funkhouser, Phil. Jour. Sci. x, p. 388, pl. 2, fig. 13 (1915). Butuan, Panay, Culasi, Mindanao, Philippines.
- caliginosus* Walker, Jour. Linn. Soc. i, p. 93. (1856). Singapore, Anei Kloof, Sumatra; Biserat, Bali, Siam; Borneo.
- albomaculatus* Distant, Faun. Brit. Ind. iv, p. 56. (1908); Kershaw, Ann. Soc. Ent. Belg. lvii, pp. 191-201, figs. 1-13. (1914). Tenasserim, Myitta, Marikuppam, Assam, Garo Hills, Tura, India; Penang Is., Singapore, Sumatra.
- bicolor* Distant, Faun. Brit. Ind. iv, p. 55. (1908). Bombay, India.
- repandus* Distant, Faun. Brit. Ind. vi, App. p. 163. (1916). Assam, India; Panang Is., Sumatra; Sandakan, Borneo.
- basalis* Walker, List Hom. B. M. p. 626. (1851). Hongkong, China; Horisha, Ako, Shoka, Koshun, Formosa; Singapore, Sumatra; Colombo, Ceylon; Java.
- flavipes* Uhler, Proc. U. S. Nat. Mus. xix, p. 284. (1896). Japan.

- assamensis* Distant, Faun. Brit. Ind. iv, p. 57. (1908). Assam, Margherita, Teppakulam, India; Penang Is., Singapore, Sumatra.
- æquicornis* Funkhouser, Phil. Jour. Sci. xxxiii, p. 116, pl. 4, figs. 19, 20. (1927). Benguet, Luzon, Philippines.
- robustus* Funkhouser, (♂), Phil. Jour. Sci. xiii, p. 26, pl. 1, figs. 3, 4. (1918). Benguet, Bagnio, Nueva Viscaya, Imugan, Panay, Tibiao, Culasi, Flores, Luzon, Philippines.
- amurensis* Lindberg, Noc. Ent. iv, p. 26, figs. 4, 9. (1927). Amur R., Nokolajevsk, Siberia.
- bakeri* Funkhouser, Phil. Jour. Sci. xl, p. 119, pl. 1, fig. 13, pl. 2, fig. 14. (1929). Sandakan, Bettotan, Borneo.
- acer* Walker, List Hom. B. M. Suppl. p. 163. (1858). Malacca.
- panayensis* Funkhouser, Phil. Jour. Sci. xxxiii, p. 114, pl. 3, figs. 13, 14. (1927). Panay, Philippines.
- pilinervosus* Funkhouser, Jour. Ent. Zool. vi, p. 68, fig. 2. (1914); Biol. Memb. pl. 35, fig. 18. (1917). Los Baños, Philippines; Banguey Is., Borneo.
- brunneus* Funkhouser, Jour. Sts. Br. Roy. Asiat. Soc. p. 7. (1918). Singapore, Penang Is., Sumatra; Sandakan, Borneo.
- bergeri* Funkhouser, Ann. Zool. Mus. Acad. Sci. USSR. xxviii, p. 151, pl. 6, fig. 7. (1927). Zolotoj Rog, Vladivostok, Siberia.
- robustus* Funkhouser, (♀), Phil. Jour. Sci. xiii, p. 26. (1918). Philippines.
- altidorsus* Funkhouser, Phil. Jour. Sci. xl, p. 124, pl. 2, figs. 25, 26. (1929). Penang, Sumatra.
- plicatus* Funkhouser, Phil. Jour. Sci. x, p. 387, pl. 2, fig. 12. (1915). Dapitan, Mindanao, Philippines; Banguey Is., Borneo.
- congestus* Walker, Jour. Linn. Soc. x, p. 187. (1868). Sulu Is., Philippines.
- curvicornis* Funkhouser, Ann. Zool. Mus. Acad. Sci. USSR. xxviii, p. 153, pl. 6, fig. 9. (1927). Hwang-ho R., Ordos, Mongolia, China.
- maacki* Funkhouser, Ann. Zool. Mus. Acad. Sci. USSR. xxviii, p. 152, pl. 6, fig. 8. (1927). Amur R., Siberia.
- fasciipennis* Funkhouser, Phil. Jour. Sci. xiii, p. 28, pl. 1, figs. 7, 8. (1918). Nueva Viscaya, Imugan, Luzon, Philippines.
- forticornis* Funkhouser, Phil. Jour. Sci. xl, p. 118, pl. 1, fig. 11, pl. 2, fig. 12. (1929). Imugan, Nueva Viscaya, Luzon, Philippines.
- laticornis* Funkhouser, Phil. Jour. Sci. xiii, p. 27, pl. 1, figs. 5, 6. (1918). Imugan, Nueva Viscaya, Luzon, Philippines.
- brunneicornis* Funkhouser, Phil. Jour. Sci. xl, p. 126, pl. 2, figs. 31, 32. (1929). Philippines.
- suluensis* Funkhouser, Phil. Jour. Sci. xl, p. 125, pl. 2, figs. 29, 30. (1929). Tawitawa, Sulu Is., Philippines.
- albescens* Funkhouser, Phil. Jour. Sci. xl, p. 121, pl. 1, fig. 17, pl. 2, fig. 18. (1929). Sandakan, Borneo; Penang Is., Sumatra.
- allabens* Funkhouser, Jour. Sts. Br. Roy. Asiat. Soc. p. 210. (1920). Penang Is., Sumatra; Sandakan, Bettotan, Borneo.

- manilensis* Funkhouser, Phil. Jour. Sci. xxxiii, p. 115, pl. 3, figs. 17, 18. (1927). Manila, Luzon, Philippines.
- divergens* Bierman, Notes Leyden Mus. xxxiii, p. 44. (1911). Banjuwangi, Semarang, Nongkodjadjar, Java.
- pubescens* Funkhouser, Phil. Jour. Sci. xl, p. 127, pl. 2, figs. 33, 34. (1929). Catbalogan, Samar, Philippines.
- ferruginosus* Funkhouser, Phil. Jour. Sci. xl, p. 123, pl. 2, figs. 23, 24. (1929). Penang Is., Sumatra.
- spininervis* Funkhouser, Phil. Jour. Sci. xxxiii, p. 115, pl. 3, figs. 15, 16. (1927). Samar Is., Philippines.
- spiniornis* Funkhouser, Jour. Sts. Br. Roy. Asiat. Soc. p. 6. (1918). Penang Is., Ft. de Kock, Singapore, Sumatra.
- spinidorsis* Funkhouser, Jour. Fed. Malay Sts. Mus. xiv, p. 475, figs. 7, 8. (1929). Kudat, Borneo.
- nigris* Funkhouser, Jour. Sts. Br. Roy. Asiat. Soc. p. 212, figs. 5, 6. (1920). Sandakan, Borneo.
- allabens* Distant, Faun. Brit. Ind. vi, App. p. 166, fig. 122. (1916). Perak Is., Penang Is., Sumatra; Kurseong, E. Himalayas, Darjiling, India; Taiping, China; Sandakan, Bettotan, Borneo.
- resectus* Distant, Faun. Brit. Ind. vi, App. p. 167. (1916). Maymyo, Burma; Myitta, Tenerassam, India; Penang Is., Singapore, Perak, Sumatra; Sandakan, Borneo.
- nigroapicalis* Funkhouser, Suppl. Ent. xv, p. 3, figs. 4, 5. (1927). Ft. de Kock, Sumatra.
- attenuicornis* Funkhouser, Phil. Jour. Sci. xl, p. 120, pl. 1, fig. 15, pl. 2, fig. 16. (1929). Sandakan, Borneo.

Tricentroides

Distant, Faun. Brit. Ind. vi, App. p. 169. (1916).

KEY TO SPECIES

- 1(2). Brown, head and base of metopidium broadly black, legs pale ochraceous; tegmina subhyaline, base and costal are blackish; suprahumeral slender, oblique, slightly longer than intervening space, tips black, posterior process straight, apical area curving upwardly black; 7×4.5 mm. **proprius**
- 2(1). Sordid green, doubtless testaceous with age, tegmina brownish subhyaline, apical area broadly ochraceous; suprahumeral short, moderately strong, posterior process arcuate, apex straight; 5×3 mm **orcus**

LIST OF SPECIES

- proprius** Distant, Faun. Brit. Ind. vi, App. p. 169, fig. 124. (1916). Cherrapunji, Assam, India.
- orcus** Buckton, Mon. Memb. p. 247, pl. 60, fig. 7. (1903). Philippines.

Maguva

Melichar, Homop. Ceylon, p. 109. (1903). *Anchonoides* Distant, Faun. Brit. Ind. vi, App. p. 162. (1916).

KEY TO SPECIES

- 1(2). Posterior process substraight from basal angle, apical area distant from margins of tegmina, lobe beneath with a posterior spur; suprahumeral twice longer than broad, tips recurved; pronotum and legs brown; tegmina ferruginous, costal margin broadly darker; 9×7 mm. **horrida**
- 2(1). Posterior process strongly sinuate from basal angle, apical area impinging upon margins of tegmina, lobe beneath not spurred, suprahumeral four times longer than broad, curved outwardly, tips recurved; pronotum brown, legs yellowish; 9×6.5 mm. **typica**

LIST OF SPECIES

horrida Melichar, Homop. Ceylon, p. 109, pl. 2, fig. 21. (1903); Distant, Faun. Brit. Ind. iv, p. 14, fig. 10 (1908). Ceylon.

typica Distant, Faun. Brit. Ind. vi, App. p. 162, fig. 120. (1916). Hakgala, Ceylon.

Anchon

Buckton, Mon. Memb. p. 214. (1903).

KEY TO SPECIES

- 1(4). Basal angle of posterior process dentate anteriorly.
- 2(3). Posterior process arched beyond basal angle, suprahumeral slender, much longer than the intervening space; entirely black, tegmina ferruginous; 6×4 mm. **remigium**
- 3(2). Posterior process straight beyond basal angle, suprahumeral robust, long as the intermediate space; pronotum fuscous brown, legs yellowish; tegmina hyaline or subopaque, two brown spots on apical margin; 5×3 mm. **rectangulatum**
- 4(1). Basal angle of posterior process not dentate anteriorly.
- 5(12). Posterior process straight or substraight beyond basal angle.
- 6(11). Apex of posterior process passing far beyond apex of clavus; brown.
- 7(10). Suprahumeral robust, twice longer than the intervening space, margins serrate; densely pilose.
- 8(9). Suprahumeral straight, posterior process brownish ochraceous, spinulose, tip black, legs yellowish; tegmina brown, base paler, brown spot beyond clavus; 6×3.5 mm. **echinatum**
- 9(8). Suprahumeral strongly outwardly curved, posterior process concolorous, legs ferruginous; tegmina clear hyaline, shining, bases fuscous red; 6×4 mm. **bucktoni**

- 10(7). Suprahumeral slender, long as the intervening space, curved outwardly, margins not serrate, legs brown; tegmina clear hyaline, base and spots on tip of costa, at apical angle, and behind clavus brown; 6×4 mm. **dirce**
- 11(6). Apex of posterior process much shorter than apex of clavus, slightly convex, suprahumeral weakly oblique, long as the intermediate space; black, legs ochraceous; tegmina subhyaline, spot beyond clavus and apical angle brown; 5×3.5 mm. **brevis**
- 12(5). Posterior process lightly but distinctly sinuate beyond basal angle, apex blackish, suprahumeral curved outwardly, long.
- 13(14). Pronotum brownish testaceous, densely pilose, basal angle of posterior process rounded, legs concolorous; tegmina semiopaque gray, spot beyond clavus and at apical angle brown; 5×3.5 mm. **pilosum**
- 14(13). Pronotum umber brown, pubescent, basal angle acute, legs pale testaceous; tegmina brown, apical area hyaline, brown spot beyond clavus; 6×3.5 mm. **ulniforme**

LIST OF SPECIES

- remigium** Buckton, Mon. Memb. p. 215, pl. 48, fig. 5. (1903). Unknown.
- rectangulatum** Kirby, Jour. Linn. Soc. Zool. xxiv, p. 166. (1891); Distant Faun. Brit. Ind. iv, p. 51, fig. 43. (1908). Anuradhapura, Ceylon; Mysore, India. Semarang, Wonosobo, Salatiga, Java.
- pilosus** Melichar, Hom. Faun. Ceylon, p. 119, pl. 6, fig. 11. (1903). Peradeniya, Ceylon.
- echinatum** Distant, Faun. Brit. Ind. iv, p. 51, fig. 42. (1908). Tenasserim, Myitta, India.
- bucktoni** nom. nov.
- rectangulatum** Buckton, Mon. Memb. p. 215, pl. 48, fig. 3. (1903), preoccupied. Ceylon.
- dirce** Buckton, Mon. Memb. p. 216, pl. 49, fig. 2 (1903). Distant, Faun. Brit. Ind. iv, p. 52, fig. 44. (1908). Kandy, Ceylon.
- brevis** Distant, Faun. Brit. Ind. iv, p. 53, fig. 45. (1908). Anuradhapura, Ceylon.
- pilosum** Walker, List Hom. B. M. p. 606. (1851); Distant, Faun. Brit. Ind. iv, p. 49, fig. 40 (1908). Bombay, Mysore, Pusa, Behar, Coimbatore, Shevaroy Hills, Anam, India; Peradeniya, Ceylon; Kumaon, Japan; Formosa.
- ulniforme** Buckton, Mon. Memb. p. 216, pl. 49, fig. 1. (1903); Distant, Faun. Brit. Ind. iv, p. 50, fig. 41. (1908). Tenasserim, Myitta, Mysore, India. Semarang, Wonosobo, Java.

Centrotus

- Fabricius, Syst. Rhyng. p. 18. (1803); *Beaufortiana* Distant, Ann. Mag. N. H. xviii, p. 30, (1916).

KEY TO SPECIES

- 1(6). Suprahumeral directed obliquely forward, tips dilated, truncate, posterior process tricarinate, base well separated from scutellum.
- 2(5). Pronotum piceous or black, granulose, tegmina black or piceous small pale spot near apex of clavus.
- 3(4). Suprahumeral three times longer than the intervening space, posterior process nearly straight, apex passing far beyond apex of clavus; tegmina piceous; 8×7 mm. *ramosus*
- 4(3). Suprahumeral twice longer than the intervening space, posterior process arcuate, apex just passing apex of clavus; tegmina black, veins pilose; $8 \times 5.5-6$ mm. *granulatus*
- 5(2). Pronotum ferruginous, densely punctuate, not granulose, posterior process sinuate, apex just passing apex of clavus; tegmina ferruginous; 5 mm. *angustulus*
- 6(1). Suprahumeral transverse, horizontal or oblique, not directed forward.
- 7(12). Suprahumeral oblique.
- 8(11). Suprahumeral about as long as the intervening space, apex of posterior process passing far beyond apex of clavus.
- 9(10). Pronotum purplish black, coarsely nodulate, two white spots on base, legs brown; tips of suprahumeral truncate, posterior process straight, slightly raised above the scutellum; tegmina brown, inner area hyaline; 9×6 mm. *biculatus*
- 10(9). Pronotum coarsely punctuate, not nodulate, brown to black, legs brown; tips of suprahumeral acute, posterior process sinuate, distinctly raised above the scutellum; tegmina vinaceous hyaline to brown or brown spot near apex of clavus and at tips; 10×4 mm. (variable) *cornutus*
- 11(8). Suprahumeral much longer than the intermediate space, slightly diverging, posterior process straight; pronotum black, legs tawny; tegmina yellow hyaline, base and costal area black; 8 mm. *albigutta*
- 12(7). Suprahumeral horizontal or subhorizontal, about as long as the intervening space, tips truncate or subtruncate; more or less tuberculate.
- 13(20). Base of posterior process but slightly separated from the scutellum, suprahumeral slightly elevated above the horizontal.
- 14(19). Posterior process straight.
- 15(18). Suprahumeral long as the intervening space, tips subtruncate; pronotum black or purplish.
- 16(17). Black, metopidium and legs purplish, tegmina purplish brown; 8.5×5 mm. *metangensis*
- 17(16). Entirely black; 10 mm. *albilatus*
- 18(15). Suprahumeral shorter than the intervening space, tips roundly truncate; pronotum piceous, tubercles and median carina black, legs and tegmina dark brown; 8×4 mm. *talumensis*

- 19(14). Posterior process sinuate, suprahumeral bicarinate on upper and lower surfaces, the larger granules between the keels, tips truncate; tegmina ferruginous, pubescent, legs dark brown; 6-7 mm. *indicatus*
- 20(13). Base of posterior process distinctly separated from the scutellum, suprahumeral horizontal, not at all elevated, bicarinate on the upper surface, tips broadly truncate; tegmina dark brown; pronotum black, legs ochraceous; 10 × 8 mm. *transversus*

LIST OF SPECIES

- ramosus* Distant, Faun. Brit. Ind. iv, p. 47, fig. 39. (1908). Udagama, Ceylon.
- granulatus* Kirby, Jour. Linn. Soc. Zool. xxiv, p. 166. (1891); Buckton Mon. Memb. p. 226, pl. 50, fig. 2. (1903). Kandy, Pundaloya, Nalanda, Patipolla, Ceylon.
- angustulus* Melichar, Hom. Ceylon, p. 112. (1903). Pundaloya, Ceylon.
- bioculatus* Kirby, Jour. Linn. Soc. Zool. xxiv, p. 166. (1891); Distant, Faun. Brit. Ind. iv, p. 47, fig. 38. (1908). Maskeliya, Haputale, Pundaloya, Newera Ellya, Ceylon.
- cornutus* Linnæus, Fauna Suec. p. 879. (1746); DeGeer, Mem. Ins. iii, p. 181, pl. 11, fig. 22. (1773); Petagna, Ins. Ent. p. 617, pl. 9, fig. 2. (1792); Tigny, Hist. Nat. Ins. iv, p. 120, pl. 5, fig. 3. (1802); Blanchard, Hemip. p. 182, fig. 8. (1840; Edwards, Hem. Hom. Brit. IIs, p. 19, pl. 3, fig. 2. (1896); Kirby, Nat. Hist. p. 601, fig. 94. (1897); Melichar, Vest. Klubu. Pirod. iv, p. 14, pl. 1, fig. 2. (1902); Buckton, Mon. Memb. p. 244-5, 266, pl. 56, fig. 7. (1903); Jensen-Haarup, Handb. Dan. N. H. p. 68, fig. 37. (1920). All over Europe, and Asia.
- nervosus* Motschoulsky, Bul. Soc. Imp. Nat. Mosc. xxiv, pp. 648-57. (1851).
- italicus* Kirschbaum, Cicad. p. 67. (1855).
- turcicus* Kirschbaum, Cicad. p. 67. (1855).
- abbreviatus* Kirschbaum, Cicad. p. 67. (1855).
- siculus* Kirschbaum, Cicad. p. 66. (1855).
- gallicus* Kirschbaum, Cicad. p. 67. (1855).
- horncicade* Taschenberg, Beld. Ind. Libr. p. 541. (1861).
- depressus* Fieber, Rev. Mag. Zool. iii, p. 15. (1876).
- obtusulus* Fieber, Rev. Mag. Zool. iii, p. 19. (1876).
- rugosus* Buckton, Mon. Memb. p. 243, pl. 56, fig. 3. (1903).
- albigutta* Walker, Jour. Linn. Soc. x, p. 184. (1868). New Guinea.
- metangensis* Distant, Ann. Mag. N. H. xvii, p. 323. (1916). Mt. Matang, Borneo.
- albilatus* Walker, Jour. Linn. Soc. x, p. 184. (1868). New Guinea.
- talumensis* Distant, Ann. Mag. N. H. xviii, p. 292. (1916). Talum, Siamese Malay States.

indicatus Melichar, Hom. Ceylon, p. 111. (1903). Kandy, Badulla, Rathapura Moruwale, Jaffna, Gamaduwa, Patipolla, Weligama, Madulsima, Uva, Ceylon; Chikkaballapura, S. India.

transversus Distant, Faun. Brit. Ind. iv, p. 48. (1908). Margherita, Assam, India.

Platybelus

Stål, Hemip. Afric. iv, p. 96. (1866).

KEY TO SPECIES

One small yellow species, suprahumeral long, oblique, posterior process slender, long as abdomen, apex decurved fuscous; median carina percurrent; tegmina clear hyaline; 5.5×3 mm. **luteus**

LIST OF SPECIES

luteus Funkhouser, Jour. N. Y. Ent. Soc. xxii, p. 239. (1914). Banguey, Borneo.

Evanchon

Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 40. (1930; *Anchonoides* Funkhouser, part; *Maguva* Funkhouser, part.

KEY TO SPECIES

- 1(4). Dark brown; suprahumeral short, robust, bases not distant, tips blunt, posterior process about as long as the abdomen.
- 2(3). Tegmina entirely coriaceous, opaque, base black, central area mottled brown and black, tips brown; ocelli equidistant; suprahumeral long as wide at bases, horizontal, base swollen, tips abruptly acuminate; apex of scutellum bidentate; 6×2.8 mm. **sordidus**
- 3(2). Tegmina with base brown, opaque, then smoky hyaline, then clear hyaline, apical area amber hyaline; ocelli nearer to eyes; pronotum with five white pubescent longitudinal lines; suprahumeral weakly oblique, about as long as wide at bases, middle area elevated above and nodulate, tips obliquely truncate hind angle acute; apex of scutellum truncate; tarsi flavous; 5×4 mm. **variegatus**
- 4(1). Black; suprahumeral distant between bases, moderately long, slender, acute; posterior process distinctly longer than abdomen.
- 5(6). Pronotum shining, not pubescent, legs dark brown; ocelli nearer to eyes; suprahumeral long as intervening space, oblique, tips lightly decurved; posterior process with a conical node at base; tegmina black with three hyaline areas, and three discoidal cells; 6×4 mm. **nigra**
- 6(5). Pronotum with five white longitudinal pubescent stripes; suprahumeral half as long as the intervening space, horizontal, base without dorsal node; tegmina with bases black, apical two-thirds hyaline, interior angle and apical margin brown, stigma

black, two discoidal cells; abdomen black and white, legs black middle and hind tibiae and base of tarsi luteus; 6×4 mm.

serpentinus

LIST OF SPECIES

- sordidus** Funkhouser, Jour. Roy. Asiat. Soc. vi, p. 13. (1928). Siberut Is., Sumatra.
variegatus Funkhouser, Jour. Str. Br. Roy. Asiat. Soc. No. 79, p. 4. (1918). Singapore.
nigra Funkhouser, Phil. Jour. Sci. Br. Roy. Asiat. Soc. No. 82, p. 209, figs. 3 and 4. (1920). Sandakan, Borneo.
Serpentinus Funkhouser, Jour. Str. Br. Roy. Asiat. Soc. No. 82, p. 209, figs. 3, 4. (1920). Sandakan, Borneo.

Uroxiphini

Pogontypus

- Distant, Faun. Brit. Ind. iv, p. 67. (1908).

KEY TO SPECIES

- 1(6). Pronotum tricarinate anteriorly, posterior process close to the scutellum; tegmina yellowish, base and costal margins broadly piceous.
 2(5). Posterior process tricarinate.
 3(4). Base of head highly arched with a tubercle above each ocellus a circular depression between, black; ocelli some nearer to and even with the upper margin of the large prominent eyes. Pronotum gibbous, finely punctate, dark ferruginous, base broadly and smooth spot above each eye black, the basal margin a strong carina; median carina strongly percurrent, lateral caninae short, curved, nearer to humerals than to median carina; posterior process paler, abruptly depressed and narrow from the extreme base, straight, impinging upon the scutellum and margins of tegmina to apex of clavus, tip blunt. Tegmina yellow hyaline, base broadly piceous the hyaline area extended through the middle, costal cell dark ferruginous and with base punctuate; two contiguous discoidal cells and five apical cells their veins curved inwardly; clavus with two veins, exterior vein curved to inner margin behind middle, apex obtuse; wings with four apical cells. Body and femora black, tibiae and tarsi pale ferruginous, chest yellow pubescent. Type, female, long. 4, lat. 1.3 mm. From Tamworth, N. S. W., Australia. (*Lea*). **australis** new species
 4(3). Base of head not bituberculate, ocelli as in *australis*; pronotum dark brown to black, lateral carinae midway between humerals and percurrent median carina, posterior process lightly sinuate, not depressed at base, median spot and tip black in brown examples, tip passing apex of clavus; tegmina rust yellow, base and broad costal margin darker; legs rust yellow; 4 mm. **complicatus**

- 5(2). Posterior process tricarinate, grayish white, middle and apex purplish, passing apex of clavus; pronotum ochraceous, rugulose; tegmina purplish, subapical spot and apical margin grayish white; chest purplish brown, abdomen and legs ochraceous, margins of abdominal segments purplish brown; 4 mm. **horvathi**
- 6(1). Pronotum unicarinate, testaceous, body concolorous; posterior process stramineous, sinuate, slightly separated from scutellum, median spot and tip fuscous reaching apex of clavus; tegmina ochraceous, apical margin paler with two large fuscous spots; legs yellowish, tips of tarsi black; 4 × 2 mm. **dissimilis**

LIST OF SPECIES

australis Goding, supra. Tamworth, N. S. W., Australia.

complicatus Melicar, Hom. Ceylon, p. 125. (1903); Distant, Faun. Brit. Ind. iv, p. 67, fig. 55. (1908). Negombo, Pattipola, Kandy, Yatiyantola, Ceylon.

horvathi Distant, Faun. Brit. Ind. iv, p. 67. (1908). Yatiyantola, Ceylon.

dissimilis Distant, Faun. Brit. Ind. vi, App. p. 173, fig. 127. (1916). Ceylon.

Melicharella

Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 39. (1930); *Machærotypus* Melichar, Homop. Ceylon, p. 125. (1903).

KEY TO SPECIES

- 1(4). Posterior process tricarinate, tip just passing apex of clavus; tegmina yellow subhyaline; legs ochraceous.
- 2(3). Pronotum piceous to black, pubescent, median carina percurrent; basal and costal areas of tegmina brown, veins to fourth and fifth apical cells curved inwardly, sometimes brown spot behind clavus; 4.7–5 mm. (?*Popontypus*) **inculta**
- 3(2). Pronotum ochraceous, coarsely granulate, median carina absent anteriorly; basal and costal areas ochraceous, apical veins straight, brown spot behind clavus; 4.5–5 mm. **pallescens**
- 4(1). Posterior process unicarinate, apex black not reaching apex of clavus; front of pronotum and humerals black, disk and posterior process with legs ochraceous; median carina percurrent; basal and costal areas black; 5 mm. **nuwarana**

LIST OF SPECIES

inculta Melichar, Hom. Ceylon, p. 124. (1903); Distant, Faun. Brit. Ind. iv. p. 68, fig. 56. (1908). Pattipola, Ceylon.

discretus Melichar, Hom. Ceylon, p. 125. (1903). Nuwara Eliya, Peradeniya, Ceylon.

pallescens Distant, Faun. Brit. Ind. vi, App. p. 173. (1916). Nuwara Eliya, Ceylon.

nuwarana Distant, Faun. Brit. Ind. vi, App. p. 174. (1916). Nuwara Eliya, Ceylon.

Occator

Distant, Faun. Brit. Ind. vi, App. p. 174. (1916).

KEY TO SPECIES

One black species, tibiae yellowish, posterior process slender, apical half obliquely elevated even with apex of clavus; tegmina shining ochraceous, base and most of costal margin black; 5 mm. **erectus**

LIST OF SPECIES

erectus Distant, Faun. Brit. Ind. vi, App. p. 174, fig. 128. (1916) Kurseong, E. Himalayas, India.

Demanga

Distant, Faun. Brit. Ind. iv, p. 69. (1908).

KEY TO SPECIES

- 1(2). Black, densely pilose, legs brown; median carina of pronotum percurrent, posterior process obliquely straight, tricarinate, apex touching margins of tegmina far beyond apex of clavus; tegmina bronze subhyaline, base brown; 8×3 mm. **sooknana**
- 2(1). Brown, densely pubescent; median carina of pronotum nearly obsolete, posterior process unicarinate, sinuate, entirely distant from margins of tegmina, much shorter than clavus; tegmina ferruginous hyaline, base narrowly brown, tips clouded; 10×4 mm. **brunnea**

LIST OF SPECIES

sooknana Distant, Faun. Brit. Ind. iv, p. 69, fig. 57. (1908). Sookna, India.

brunnea Funkhouser, Rec. Ind. Mus. xxiv, p. 328, pl. 10, fig. 5. (1922). Mungpoo, Darjiling, E. Himalayas, India.

Narnia

Walker, Jour. Linn. Soc. x, p. 192. (1868). *Terentius* Stål, Bid. Memb. K. p. 286. (1869).

KEY TO SPECIES

- 1(8). Black or piceous.
- 2(5). Median carina absent on the metopidium; pronotum black.
- 3(4). Tegmina dark fuscous, base black; legs reddish; 7×3 mm. **densa**
- 4(3). Tegmina cinereous, base black, legs tawny; 7 mm. **retracta**
- 5(2). Median carina of pronotum percurrent, faint on metopidium.
- 6(7). Piceous, abdomen and legs yellowish piceous; apex of posterior process decurved; tegmina vitreous, costa and tips pale piceous; 8×4 mm. **convexa**
- 7(6). Black, legs piceous; apex of posterior process straight; tegmina

- shining, ochraceous, apical area castaneous brown, base, costal area and narrow apical margin black; 8×4 mm. **rolandi**
 8(1). Tawny; streak each side of base and one each side on slender area of posterior process, broad basal band on abdomen, and legs pale yellow; tegmina pellucid, base tawny; median carina absent on metopidium; 6 mm. **rostrata**

LIST OF SPECIES

- densa** Walker, Jour. Linn. Soc. x, p. 189. (1868). New Guinea.
punctatissimus Stål, Bid. Memb. K. p. 286. (1869). New Guinea; Batehian Is; Dory Is. (both near New Guinea).
spissus and *pictipennis* Distant, Ann. Mag. N. H. xvi, p. 493. (1915). nom. nud.
retracta Walker, Jour. Linn. Soc. x, p. 190. (1868). Morty Is., East Indies.
convexa Stål, Bid. Memb. K. p. 286. (1869); Goding, Mon. Aust. Memb. p. 7, pl. 1, figs. 8, 14. (1903). Rockhampton, Brisbane, Cairns, Queensland; Tweed R., N. S. W; Williamstown, South Australia.
rolandi Distant, Ann. Mag. N. H. xvi, p. 492. (1915). Binituri R., New Guinea; Kurandi, Queensland, Australia.
rostrata Walker, Jour. Linn. Soc. x, p. 192. (1868). Flores Is., S. of Celebes Is.

Dingkana

Goding, Mon. Aust. Memb. p. 8, (1903).

KEY TO SPECIES

- 1(8). Tegmina entirely or partly brown, base brown or black; unicarinate.
 2(7). Tegmina partly brown and partly hyaline.
 3(6). Apical area or margin brown, base black.
 4(5). Base of tegmina broadly black, apical two-thirds translucent brown, broad decolored vitreous central band between, radial and ulnar veins nodulate; pronotum black, coarsely punctate, posterior process tectifor, gradually acuminate, strongly decurved from base, unicarinate not extended on metopidium, long as abdomen; head black, punctate, wider than long, base sinuate, ocelli nearer to and even with center of eyes, margins of genæ slightly sinuate; legs and abdomen dark brown dorsum of the latter piceous, tarsi reddish; 6×2 mm. **vitrefascia** new species.

Described from two females from Dutch New Guinea, in collection of Goding.

- 5(4). Tegmina cinerous hyaline, tips dark brown, abdomen and legs black, tarsi reddish; median carina of pronotum weakly percurrent, posterior process straight; 5 mm. **curtula**
 6(3). Tegmina cinerous hyaline, oblique basal area piceous, two irregular incomplete brown bands; piceous, legs ferruginous; median carina weakly percurrent, posterior process decurved; 7 mm. **nubifascia**

- 7(2). Tegmina unicolorous brown, base black; black, thickly pubescent, legs reddish, median carina weakly percurrent, posterior process straight; 6 mm. **densa**
- 8(1). Tegmina vinaceous hyaline without brown markings; black, apex of posterior process decurved, unicarinate.
- 9(10). Median carina of pronotum weakly percurrent, posterior process slightly curved; legs black; 5 mm. **contermina**
- 10(9). Median carina absent on metopidium, posterior process strongly curved from base; brown, legs yellowish; 5×2 mm. **borealis**

LIST OF SPECIES

vitreifascia Goding, supra. Dutch New Guinea.

curtula Walker, Jour. Linn. Soc. x, p. 190. (1868). Mysol Is., near New Guinea.

nubifascia Walker, Jour. Linn. Soc. x, p. 191. (1868). New Guinea.

densa Walker, Jour. Linn. Soc. x, p. 189. (1868). New Guinea.

contermina Walker, (♀), Jour. Linn. Soc. x, p. 190. (1868). Aru Is., near New Guinea.

reductus Walker, (♂), Jour. Linn. Soc. x, p. 190 (1868). New Guinea.

borealis Goding, Mon. Aust. Memb. p. 9, fig. 1, fig. 21. (1903). Cairns, Queensland, Australia.

*Leptocentrina***Maarbarus**

Distant, Faun. Brit. Ind. iv, p. 16. (1908).

KEY TO SPECIES

- 1(2). Suprahumerals oblique, straight, inclined backwardly, slender, tips acute; pronotum brown, posterior process extended to tips of tegmina, the latter brown; 7×3 mm. **cinctus**
- 2(1). Suprahumerals oblique, strongly recurved, tips acute and carinate; pronotum black, median carina percurrent, posterior process tricarinate, shorter than the tegmina; tegmina pale yellow, base, costal area and spot near clavus black; legs yellowish; 6.6×5 mm. **bubalus**

LIST OF SPECIES

cinctus Buckton, Mon. Memb. p. 236, pl. 53, fig. 8. (1903). Calcutta, India.

bubalus Kirby, Jour. Linn. Soc. Zool. xxiv, p. 167. (1891); Distant, Faun. Brit. Ind. iv, p. 17, fig. 13. (1908). Pundaluoya, Maskeliya, Ceylon.

Bathoutha

Distant, Faun. Brit. Ind. iv, p. 23. (1908).

KEY TO SPECIES

One brown species, median carina weak on metopidium, suprahumerals

porrect tips truncate, the outer angle a horizontal spine, finely tuberculate above; posterior process strongly arcuate from base, slender, tricarinate; tegmina piceous, bronze brown on inner and costal apical areas; legs ochraceous; 7.5×4 mm. **indicans**

LIST OF SPECIES

indicans Walker, List Hom. B. M. Suppl. p. 128 (1858); Distant, Faun. Brit. Ind. iv. p. 23, fig. 21. (1908). Yatiyantota, Ceylon.

Indicopleustes

Distant, Faun. Brit. Ind. iv, p. 25. (1908).

KEY TO SPECIES

- 1(2). Suprahumeral oblique, sides parallel, tips truncate, posterior process slender, tricarinate, strongly convexly elevated from base, apical half impinging upon margins of tegmina; pronotum dark brown, not crested, median carina absent on metopidium; tegmina brown, opaque, sometimes with small white spots; $4-5.5 \times 2.5-3$ mm. **curvatus**

- 2(1). Suprahumeral horizontal, gradually acuminate; posterior process robust, base straight and near base of scutellum, middle convexly elevated, apical half sinuous on margins of tegmina; pronotum black, median carina percurrent and crested on disk; tegmina dark brown, opaque, apical third pale yellow hyaline; 5.5 mm. **apicatus**

LIST OF SPECIES

curvatus Melichar, Hom. Ceylon, p. 112. (1903). Peradeniya, Kandy, Ceylon.

albomaculatus Distant, Faun. Brit. Ind. iv, p. 25, fig. 23. (1908). Peradeniya, Ceylon.

apicatus Melichar, Notes Leyden Mus. xxxvi, p. 113, fig. 7. (1914). Nusa Kambangan, Java.

Parapogon

Distant, Faun. Brit. Ind. iv, p. 22. (1908).

KEY TO SPECIES

- 1(2). Suprahumeral horizontal, posterior process robustly convex at base, then obliquely straight, unicarinate, castaneous; pronotum black, legs testaceous; tegmina subhyaline, broad basal area, costal and subcostal areas on basal two-thirds, and spot near clavus piceous, whole inner area bronze, tips hyaline; 4×2 mm. **kandyiana**
- 2(1). Suprahumeral moderately oblique, posterior process strong, but slightly elevated above the scutellum, straight, tricarinate, apical third slender; pronotum and legs brownish ochraceous; tegmina pale ochraceous, broad central longitudinal to apical margin beyond

clavus and large costal apical spot shining stramineous; 5.5-7 × 4 mm. **insignis**

LIST OF SPECIES

kandyiana Distant, Faun. Brit. Ind. iv, p. 22, fig. 20 (1908). Kandy, Ceylon.

insignis Distant, Faun. Brit. Ind. vi, App. p. 153, fig. 110. (1916). Nuwara Eliya, Ceylon.

Leptocentrus

Stål, Berlin Ent. Zeit. x, p. 386. (1866); *Rabduchus* Buckton, Mon. Memb. p. 251. (1903); *Bocchar* Jacobi, Sjost, Kil-Meru Exped. p. 120. (1910), part.

KEY TO SPECIES

- 1(14). Posterior process distant from the scutellum and margins of tegmina from base to apex.
- 2(11). Suprahumeral more or less strongly oblique.
- 3(6). Suprahumeral about as long as the intervening space, moderately oblique, posterior process distinctly convexly elevated at base then straight, tricarinate usually, median carina percurrent; tegmina brownish.
- 4(5). Dark brown, shining, apex of posterior process not extended beyond apex of clavus; tegmina very long, narrow, brownish subhyaline; 10 × 5 mm. **impunctus**
- 5(4). Black, lengthy pilose, apex of posterior process extended slightly beyond apex of clavus; tegmina pale bronze; 6-6.5 × 4-4.5 mm. **bajulans**
- 6(3). Suprahumeral much longer than the intervening space, strongly oblique, apex of posterior process extending far beyond apex of clavus; brown.
- 7(10). Posterior straight from base not convex at its origin, suprahumeral long, slender, strongly recurved.
- 8(9). Reddish brown, densely pubescent, median carina percurrent; suprahumeral three times longer than the intervening space, a small tooth between bases, posterior process straight, apex slightly decurved; tegmina smoky hyaline; 8 × 6 mm. **tenuicornis**
- 9(8). Brown, slightly pilose, metopidium shining, the median carina obsolete; suprahumeral more than twice longer than the space between bases, posterior process subarcuate from base, apex black; tegmina hyaline, brown apical spot; 9 × 7 mm. **gracilis**
- 10(7). Fusco-ferruginous, densely yellow pubescent; suprahumeral longer than the intervening space, moderately oblique, posterior process convexly elevated at base, median carina not extended on metopidium; tegmina pale fuscous hyaline; 9 × 5 mm. **antelope**
- 11(2). Suprahumeral horizontal or subhorizontal, strongly recurved, apex of posterior process extended far beyond apex of clavus, median carina percurrent; pronotum black.

- 12(13). Suprahumeral broad, more than twice longer than the intervening space; tegmina pale lurid; 8×7 mm. **taurifrons**
- 13(12). Suprahumeral short, obliquely narrowed, tips acute carinate; tegmina pale bronze ochraceous, costal area black; 7×5 mm. **obortus**
- 14(1). Posterior process distant from the scutellum, apex touching margins of tegmina.
- 15(30). Suprahumeral distinctly longer sometimes strongly oblique.
- 16(23). Suprahumeral a little longer than the intervening space, moderately oblique, strongly recurved, posterior process subareuate, tricarinate, median carina percurrent, apex extended far beyond apex of clavus.
- 17(20). Scutellum long as broad at base; pronotum black.
- 18(19). Pronotum pubescent; tegmina smoky hyaline base and tarsi brown; 8×6 mm. **arcuatus**
- 19(18). Pronotum not pubescent; tegmina shining bronze; 5×3 mm. **ustus**
- 20(17). Scutellum distinctly longer than broad at base.
- 21(22). Entirely deep purple, shining, not pubescent, scutellum twice longer than broad, purple; tegmina bronze hyaline, base black, veins purple, three discoidal cells; 7.5×5 mm. **purpureus**
- 22(21). Entirely black, pubescent, scutellum some longer than broad base densely white tomentose, tarsi brown; tegmina smoky hyaline, base narrowly brown, two discoidal cells; 8×6 mm. **jacobsoni**
- 23(16). Suprahumeral more than twice longer than the intervening space, strongly recurved, carina near hind margin of upper surface, posterior process tricarinate base convexly elevated; base and costal area of tegmina black or brown.
- 24(29). Pronotum black.
- 25(28). Posterior process concolorous, median carina percurrent; base and costal area of tegmina black; scutellum about long as broad.
- 26(27). Pronotum not pubescent, apical fourth of posterior process impinging upon margins of tegmina; tarsi piceous or yellowish; tegmina shining ochraceous; $7-9 \times 4.5-7$ mm. **leucaspis**
- 27(26). Pronotum longly pilose, tip of posterior process touching margins of tegmina; tarsi black; tegmina pale ochraceous subhyaline; 9×9 mm. **longispinus**
- 28(25). Posterior process distinctly reddish; pronotum pubescent, abdomen and legs brown; scutellum wider than long; tegmina fuscous hyaline, base broadly yellowish, costal margin brown; 8.6×6.8 mm. **rufospinus**
- 29(24). Fuscous brown, pilose, no median carina on metopidium; suprahumeral obliquely erect, tips subtruncate front angle rounded; scutellum long as wide; tegmina pale bronze, extreme base and costal margin fuscous brown; 8×6 mm. **abdullah**
- 30(15). Suprahumeral horizontal or subhorizontal, posterior process tricarinate.

- 31(40). Suprahumeral distinctly longer than the intervening space.
- 32(37). Pronotum black, median carina percurrent; ocelli equidistant.
- 33(36). Posterior process substraight from base; pilose.
- 34(35). Suprahumeral twice longer than width between bases, tips slightly depressed; scutellum longer than wide; tegmina smoky hyaline, extreme base and apical spot brown; 8×7 mm. **manilensis**
- 35(34). Suprahumeral a little longer than space between bases, broad, front margin subfoliaceous, tips abruptly acute; scutellum long as broad; tegmina pale lurid, costal margin black; $8 \times 6.5-7$ mm. **reponens**
- 36(33). Posterior process abruptly convexly elevated at base then substraight, suprahumeral robust some longer than intervening space, carina near hind margin of upper surface, tips acute; tegmina pale bronze ochraceous, base and apical half of costal margin black; $7-8 \times 5-6$ mm. **taurus**
- 37(32). Pronotum not black, strongly pubescent.
- 38(39). Ferruginous, posterior process black, legs tawny, median carina percurrent; suprahumeral moderately long, slender; tegmina vitreous; base tawny; 6×4 mm. **obliquus**
- 39(38). Reddish testaceous; suprahumeral a little longer than space between bases, robust, apical area acuminate; posterior process arcuate from base to apex median carina not extended on the metopidium; base of exterior discoidal cell of tegmina petiolate; 7.5×5 mm. **subflavus**
- 40(31). Suprahumeral not longer than the intervening space, usually shorter; median carina of pronotum percurrent.
- 41(46). Pronotum black.
- 42(45). Tegmina bronze or lurid hyaline.
- 43(44). Base and costal margin of tegmina black or brown; apex of posterior process extended far beyond apex of clavus; $6-7 \times 3.5-4$ mm. **vicarius**
- 44(43). Base and margins of tegmina black with a large subbasal white spot; apex of posterior process just passing apex of clavus; 6.5×3.5 mm. **albonotatus**
- 45(42). Tegmina black, tips colorless hyaline; apex of posterior process extended far beyond apex of clavus; 8×4 mm. **substitutus**
- 46(41). Pronotum not black.
- 47(50). Pronotum dark brown, densely pubescent.
- 48(49). Densely yellow pubescent; suprahumeral shorter than space between bases, tips acute, posterior process curved at base, long as clavus; scutellum long as wide; tegmina pale bronze, base apical half of costa piceous, two discoidal cells; $8 \times 4-4.5$ mm. **orientalis**
- 49(48). Entirely covered with dense snow-white tomentum, legs yellow; basal margin of pronotum projecting forward, suprahumeral about equal in length to width between bases, broad, acute;

- dorsum arcuate from base of metopidium to posterior apex the latter just passing apex of clavus; scutellum twice longer than broad; tegmina smoky hyaline, base and costal area black, three discoidal cells; 6.5×3.6 mm. **alba**
- 50(47). Pronotum purplish brown, apex of scutellum greenish, body and legs ochraceous; ocelli nearer to the eyes; suprahumeral shorter than width between bases, posterior process sinuate, apex depressed just passing apex of clavus; tegmina pale bronze brown; $9-10 \times 4.5$ mm. **scutellatus**

LIST OF SPECIES

- impunctus** Buckton, Tr. Linn. Soc. Zool. ix, p. 334, pl. 22, fig. 6. (1905).
Padaukbin, Burma, India.
- bajulans** Distant, Faun. Brit. Ind. vi, App. p. 155, fig. 113. (1916).
Bengal, Calcutta, Murshidabad, Berhampur, Chittagong, Rangamati, Travancore, Kulattupuzha, India; Chalahudi, Cochin State; Moulmein, Burma.
- tenuicornis** Funkhouser, Suppl. Ent. xv, p. 11, figs. 18, 19. (1927).
Sulasin, Sumatra.
- gracilis** Funkhouser, Rec. Aust. Mus. xv, p. 307, pl. 26, figs. 7, 8. (1927).
Broken Hill, N. S. W., Australia.
- antelope** Stål, Eug. Resa Omk. J. Zool. iv, p. 284. (1859).
Manila, Philippines.
- taurifrons** Walker, List Hom. B. M. p. 608. (1851).
Java.
- obortus** Distant, Faun. Brit. Ind. vi, App. p. 154. (1916).
Moulmein, Burma; Simla Hills, Phagu, Assam, Garo Hills, Tura, Madras, Ganjam, Barkuda Is., Chilka Lake, India.
- arcuatus** Funkhouser, Phil. Jour. Sci. xxxiii, p. 113, pl. 3, figs. 11, 12. (1927).
Palawan, Philippines.
- ustus** Buckton, Mon. Memb. p. 236, pl. 53, fig. 7. (1903).
Ceylon; Madras, India.
- purpureus** Funkhouser, Jour. Fed. Malay Sts. Mus. xiv, p. 471, figs. 3, 4. (1929).
Bettotan, Borneo.
- jacobsoni** Funkhouser, Suppl. Ent. xv, p. 12, figs. 20-22. (1927).
Ft. de Kock, Harau Kloof, Talang, Sumatra.
- leucaspis** Walker, List Hom. B. M. Suppl. p. 158. (1858); Buckton, Mon. Memb. p. 235, pl. 53, fig. 3. (1903); Distant, Faun. Brit. Ind. iv, p. 30, fig. 25, (1908).
Chatrapur, Dum Dum, Taiping, Punjab, Rawalpindi, India; Kandy, Pundaluoya, Maskeliya, Peradeniya, Ceylon; Perak, Singapore, Sumatra; Sandaken, Kudat, Borneo; Batbatan Is., Philippines.
- tauris** Walker, List Hom. B. M. p. 602. (1851).
India.
- flexicorne** Walker, Ins. Saund. Hom. p. 79. (1858).
India.
- atrocoxis** Kirby, Jour. Linn. Soc. Zool. xxiv, p. 164. (1894).
Nawalapitya, Ceylon.
- mephistopheles** Buckton, Mon. Memb. p. 235, pl. 53, fig. 4. (1903).
Sikhim, India.

- longispinus** Distant, Faun. Brit. Ind. iv, p. 31. (1908). Burma; Mormugao, Portugues India; Penang Is., Singapore, Sumatra; Sandakan, Borneo; Semarang, Java.
- rufospinus** Funkhouser, Suppl. Ent. xv, p. 13, figs. 23-25. (1927). Ft. de Kock, Sumatra; Sumbawa, Java.
- abdullah** Distant, Ann. Mag. N. H. xviii, p. 290. (1916). Bulsit Besar, Siamese Malay States; Mt. Maropok, Dent, Borneo.
- manilænsis** Funkhouser, Phil. Jour. Sci. xxxiii, p. 112, pl. 2, figs. 9, 10. (1927). Manila, Philippines.
- responens** Walker, List Hom. B. M. p. 604. (1851); Funkhouser, Phil. Jour. Sci. x, p. 379, pl. 1, fig. 6. (1915). Tenerassim, Bengal, Myitta, India; Ceylon; Sumatra; Los Baños, Manila, Luzon, Davao, Montalban, Pæte, Panay, Tibiao, Culasi, Lipati, Mindanco, Philippines.
- taurus** Fabricius, Syst. Ent. p. 676. (1775); Distant, Faun. Brit. Ind. iv, p. 28, fig. 24. (1908). Common throughout India; Moulmein, Burma; Rura, Garo Hill, India; Cambodge, Siam; Singapore, Sumatra; Timor Is.; Kinabalu, Borneo; Philippines.
- rupricapra** Fabricius, Ent. Syst. iv, p. 14. (1798). India.
- scutellaris** Fabricius, Syst. Rhyng. p. 19. (1803). India.
- tricornis** Hardwick, Jour. Zool. xiii, p. 114, pl. 30, figs. c, d. (1828). India.
- terminalis** Walker, List Hom. B. M. p. 605. (1851). Hong Kong, China.
- gazella** Buckton, Mon. Memb. p. 235, pl. 53, fig. 5. (1903). Ceylon.
- obliquus** Walker, Ins. Saund. Hom. p. 79. (1858). Hindostan, India.
- subflavus** Noulhier and Martin, Hemip. Mission Pavie, Indo-China, iii, p. 167, pl. 10, fig. 5. (1904). Cambodge, Siam.
- vicarius** Walker, List Hom. B. M. p. 605. (1851). Java.
- insignis** Distant, Faun. Brit. Ind. iv, p. 32. (1908). Muching, Borneo; Nankauri, Nicobar Is.
- albonotatus** Distant, Ann. Mag. N. H. xviii, p. 289. (1916). Nilgiri Hills, India.
- substitutus** Walker, List Hom. B. M. p. 605. (1851). N. Bengal, Calcutta, Bombay, Mysore, Rajmanal, Bhogaon, Purneah, Orissa, Gopkuda Is. Chilka Lake, India; Peradeniya, Elephant Pass, Colombo, Yatiyantota, Balangoda, Kelani Valley, Ceylon.
- orientalis** Schumacher, Suppl. Ent. iv, p. 116. (1915). Formosa Is., Japan.
- alba** Funkhouser, Jour. Fed. Malay Sts. Mus. xiv, p. 470, figs. 1, 2. (1929). Bettotan, Borneo.
- scutellatus** Distant, Faun. Brit. Ind. vi, App. p. 155, fig. 112. (1916). Kodaikanal, India.

Nilautama

- Distant, Faun. Brit. Ind. iv, p. 32. (1908).

KEY TO SPECIES

- 1(4). Posterior process very short not passing apex of scutellum, tricarinate, suprahumeral short about as long as posterior process, robust, weakly oblique; pronotum black, pubescent, legs brown.
- 2(3). Posterior process horizontal, apex slightly upraised, blunt, tips of suprahumeral recurved, blunt; tegmina smoky hyaline, base white, costal margin, and abdomen brown, tarsi yellow; 7×4 mm. *minutispina*
- 3(2). Posterior process obliquely elevated almost erect, apex acute, suprahumeral recurved from base, apical area abruptly acute; tegmina yellow clouded without darker markings; abdomen black; 7 mm. *tricornis*
- 4(1). Posterior process longer reaching apex of clavus; pronotum black, base and costal margins of tegmina broadly black.
- 5(6). Suprahumeral oblique, broad, sides parallel, carinate behind middle above, tips roundly truncate, recurved, posterior process tricarinate, moderately elevated, tip acute; tegmina bronze hyaline, abdomen black, legs brown; 7×4.5 mm. *typica*
- 6(5). "Black, dull, scabrous. Abdomen tawny towards base above. Legs tawny. Wings hyaline, slightly grayish; veins black; fore wings black at base and along the costa. Length of body $1\frac{3}{4}$ lines; of the (expanded) wings 4 lines." (Type mutilated, suprahumeral and posterior process broken off. Distant) *cicadiformis*

LIST OF SPECIES

- minutisuina* Funkhouser, Jour. Str. Br. Roy. Asiat. Soc. p. 3. (1918). Penang Is., Sumatra.
- tricornis* Melichar, Notes Leyden Mus. xxxvi, p. 114, fig. 8. (1914). Verlaten Eiland, Krakatau Is., near Sumatra.
- typica* Distant, Faun. Brit. Ind. iv, p. 32, fig. 26. (1908) Tenasserin, Myitta, India.
- cicadiformis* Walker, Jour. Linn. Soc. i, p. 164. (1857). Sarawak, Borneo.

Arimanes

- Distant, Ann. Mag. N. H. xviii, p. 290. (1916).

KEY TO SPECIES

- 1(2). Posterior process extended to tips of tegmina; suprahumeral brown, long, tips clavate and truncate; tegmina pale bronze brown, radial and costal cells granulate; piceous, legs ochraceous; tip of suprahumeral to tips of tegmina 9 mm. *doryensis*
- 2(1). Posterior process shorter than the abdomen, suprahumeral compressed, tips obtuse, recurved; tegmina hyaline, base and tips brown; fuscous brown, legs ferruginous, knees paler; 6 mm. *magellani*

LIST OF SPECIES

doryensis Distant, Ann. Mag. N. H. xviii, p. 290. (1916). Dory, New Guinea.

magellani Fairmaire, Rev. Memb. p. 513. (1846). Manila, Philippines.

Telingana

Distant, Faun. Brit. Ind. iv, p. 17. (1908).

KEY TO SPECIES

- 1(20). Suprahumeral more or less oblique, posterior process tricarinate median carina percurrent, apex extended far beyond apex of clavus; black, rarely brown.
- 2(19). Suprahumeral about as long as the space between bases; costal area of tegmina broadly black or brown.
- 3(10). Tegmina vinaceous hyaline, apical margin more or less black or brown.
- 4(9). Tegmina broad, a little longer than the abdomen, exterior half black or brown not reaching tips; scutellum distinctly longer than broad at base.
- 5(8). Posterior process strongly convexly elevated at base and distant from the scutellum then oblique to apex which touches or closely approaches margins of tegmina; pronotum black.
- 6(7). Posterior process brown, tips of suprahumeral recurved; tegmina shining, inner apical margin black; legs fuscous yellow; 6.5×3 mm. **cognata**
- 7(6). Posterior process concolorous black, suprahumeral strongly recurved; apical margin of tegmina dark brown; legs fuscous, tarsi ochraceous; 6×3.5 mm. **travancorensis**
- 8(5). Posterior process substraight from base then horizontal and sinuate, narrowly separated from scutellum and margins of tegmina; pronotum bronze black, posterior process and legs pale brown; apex of scutellum rounded slightly notched; tegmina blackish, large inner apical area and larger inner area stramineous; 7.5–8×4 mm. **balteata**
- 9(4). Tegmina narrow, apical third extended beyond tip of abdomen, yellow hyaline, costa ferruginous, first discoidal and second apical cell fuscous; scutellum about as long as broad; pronotum shining black, rugose, apical third of suprahumeral recurved, posterior process convex at base then oblique; 9.5×5.5 mm. **scutellata**
- 10(3). Tegmina vinaceous hyaline, apical margin concolorous; suprahumeral weakly oblique, posterior process convexly elevated at base.
- 11(18). Veins of tegmina smooth, not granulose.
- 12(17). Pronotum punctate, not granulate.
- 13(16). Tegmina pale yellow hyaline; pronotum black.
- 14(15). Suprahumeral substraight; costa black, hind tibiae and tarsi whitish; 7 mm. **varipes**

- 15(14). Suprahumeral strongly recurved; broad costal area black; legs rufo-testaceous, middle and hind pairs paler; 6×3 mm. *decipiens*
- 16(13). Tegmina pale castaneous; tips of suprahumeral recurved; legs ochraceous, tips of tibiae and tarsi piceous; 6.5×5 mm. *flavipes*
- 17(12). Pronotum black or brown, granulose, middle and hind tibiae ochraceous; posterior process moderately curved at base, almost long as tegmina, the latter bronze yellow, base of clavus black; $8-9 \times 6$ mm. *canescens*
- 18(11). Tegmina yellow subhyaline, veins granulose, costal margin brown, pronotum black, legs yellowish brown; 8.5×6 mm. *formosana*
- 19(2). Suprahumeral more than twice longer than the intermediate space, strongly oblique, curved outwardly, posterior process arcuate from base to apex distant its entire length from the scutellum and margins of tegmina; pronotum piceous black, middle and hind legs ochraceous; tegmina bronze, costal area and inner margin beyond clavus piceous; $8-10.5 \times 5.5-6$ mm. *capistrata*
- 20(1). Suprahumeral horizontal or subhorizontal, posterior process tricarinate median carina percurrent, apex extended far beyond apex of clavus; black, rarely dark brown.
- 21(30). Costal margins of tegmina broadly black.
- 22(25). Apical margins of tegmina narrowly black or brown, tips of suprahumeral recurved.
- 23(24). Pronotum rugulose; tegmina pale bronze, apical margin brown; 8×6 mm. *recurvata*
- 24(23). Pronotum coarsely punctate; tegmina bronze ochraceous, apical margins black; 5.5×3 mm. *ornanda*
- 25(22). Apical margins of tegmina concolorous hyaline.
- 26(29). Posterior process distant from scutellum, weakly curved at base.
- 27(28). Suprahumeral long as space between bases, slightly recurved; tegmina yellow hyaline, apical area broadly reddish testaceous, basal part of inner margin narrowly black, sometimes an obscure apical brown spot; legs reddish testaceous, tarsi blackish; 5×3 mm. *imitator*
- 28(27). Suprahumeral a little shorter than space between bases, straight; tegmina pale lurid; legs yellow ferruginous; $5-5.5 \times 3$ mm. *subsimilis*
- 29(26). Posterior process touching apex of scutellum, base strongly convexly elevated, suprahumeral slightly recurved; tegmina vinaceous hyaline, apical area darker; 7.5×4.5 mm. *curvispina*
- 30(21). Tegmina immaculate hyaline except bases.
- 31(34). Suprahumeral long as between bases, robust, tips obtuse, posterior process well separated from the scutellum, convex at base then oblique to apex.
- 32(33). Posterior process arcuate from disk of pronotum to apex, suprahumeral recurved; pronotum ferruginous brown or pale

- castaneous, legs brownish; tegmina very pale ochraceous subhyaline, opaque but not colored at base; 5.5×3 mm. **paria**
- 33(32). Posterior process straight from base, suprahumeral straight; pronotum bluish black, legs black; tegmina bronze ochraceous, basal angle black then whitish spot; $7-8 \times 4.5$ mm. **campbelli**
- 34(31). Suprahumeral half as long as the space between bases, lightly recurved, posterior process weakly sinuate, subhorizontal, not very distant from scutellum and margins of tegmina; slender, black, tibiae dark ochraceous, tarsi black; tegmina stramineous, base black; 4×2 mm. **consobrina**

LIST OF SPECIES

- cognata** Distant, Faun. Brit. Ind. vi, App. p. 149. (1916). Nilgiri Hills, India.
- travancorensis** Distant, Faun. Brit. Ind. vi, App. p. 151. (1916). West Ghats, Travancore, India.
- balteata** Distant, Faun. Brit. Ind. vi, App. p. 151, fig. 108. (1916). Kodaikanal, India.
- scutellata** China, Ann. Mag. N. H. (9), xvi, p. 480. (1925). Atuntze, Yunnan, China.
- varipes** Walker, Jour. Linn. Soc. i, p. 164. (1857). Sarawak, Borneo.
- decipiens** Kirby, Jour. Linn. Soc. Zool. xxiv, p. 165. (1891); Distant, Faun. Brit. Ind. iv, p. 20, fig. 17. (1908). Ceylon.
- imitator* Buckton, Mon. Memb. p. 234, pl. 53, fig. 2. (1903). India.
- flavipes** Kirby, Jour. Linn. Soc. Zool. xxiv, p. 165. (1891); Distant, Faun. Brit. Ind. iv, p. 20, fig. 18. (1908). Margherita, Assam; Nawalapitya, Peradeniya, Kandy, Ceylon.
- canescens** Buckton, Mon. Memb. p. 234, pl. 53, fig. 1. (1903). Tenasserim, Sikhim, Mungphu, Myitta, India. Nongkodjadar, Nusa Kambangan, Java.
- formosana** Matsumura, Annot. Cicad. Japan, viii, p. 15. (1912). Kan-shirei, Formosa Is.
- capistrata** Distant, Faun. Brit. Ind. iv, p. 19, fig. 16. (1908). Margherita, Assam; Ruby Mines, Burma, India.
- recurvata** Distant, Ann. Mag. N. H. xviii, p. 188. (1916). Sarawak, Borneo; Tandjunggadang, Sumatra.
- ornanda** Distant, Faun. Brit. Ind. vi, App. p. 150. (1916). Kodaikanal, India.
- imitator** Kirby, Jour. Linn. Soc. Zool. xxiv, p. 167. (1891); Distant, Faun. Brit. Ind. iv, p. 21, fig. 19. (1908). Pundaluoya, Maskeliya, Weligama, Ceylon.
- subsimilis** Walker, Jour. Linn. Soc. i, p. 163. (1857). Sarawak, Borneo.
- pallipes* Stål, Bid. Memb. K. p. 284. (1869). East Indies.
- curvispina** Stål, Bid. Memb. K. p. 284. (1869); Distant, Faun. Brit. Ind. iv, p. 18, fig. 14. (1908). Maskeliya, Peradeniya, Anuradhapura, Metala, Negombo, Ceylon; Kodaikanal, India.

paria Distant, *Faun. Brit. Ind. iv, p. 18, fig. 15. (1908). N. Bengal; Kodaikanal, India.

campbelli Distant, Faun. Brit. Ind. vi, App. p. 150. (1916). Kodaikanal, India.

consobrina Distant, Faun. Brit. Ind. vi, App. p. 152, fig. 109. (1916). Kodaikanal, India.

* Distant identifies this species with *Controtus paria* Fairmaire; they belong to different genera.

Acanthophyes

Stål, Hemip. Afric. iv, p. 89. (1866); *Lobocentrus* Stål, Hemip. Phil. p. 727. (1870); *Dograna* Distant, Faun. Brit. Ind. iv, p. 24. (1908).

LIST OF SPECIES

- 1(4). Suprahumeral slender, about as long as intervening space, tips acute, posterior process slender, about as long as intervening space, tips acute, posterior process slender, tricarinate median carina percurrent, shorter than tegmina, lobe beneath resting on apex of scutellum; pronotum black.
- 2(3). Tegmina dark vinaceous, decolorated fascia beyond middle, base dark ferruginous, three discoidal cells; suprahumeral horizontal, posterior process substraight, apex near margins of tegmina; 7×3.5 mm. **zonatus**
- 3(2). Tegmina pale bronze, base black; suprahumeral weakly oblique, posterior process convex on basal half, apical half testaceous, straight, distant from tegmina; 7×3.5 mm. **suffultus**
- 4(1). Suprahumeral slender, horizontal, not more than half as long as the intervening space, frequently much shorter.
- 5(10). Posterior process distinctly shorter than tegmina, slender, sinuate, tricarinate median carina usually percurrent.
- 6(9). Tips of suprahumeral truncate or broadly rounded, apex of posterior process touching margins of tegmina.
- 7(8). Ferruginous or darker, pronotum tumid; suprahumeral depressed tips truncate front angle rounded, posterior process broadly sinuate at middle, apex decurved, swelling beneath touching apex of scutellum; tegmina fusco-ferruginous; 6.5×4.5 mm. **capra**
- 8(7). Brown or yellowish, suprahumeral blackish, broad, much shorter than the intervening space, tips rounded; posterior process bisinuate, apex decurved, swelling beneath not touching scutellum; tegmina clear hyaline, shining, base brown; $4.5-6$ mm. **chloroticus**
- 9(6). Suprahumeral about half as long as the intervening space, tips acute, posterior process arcuate apical area impinging upon the margins of tegmina; swelling beneath touching apex of scutellum; pronotum fuscous; tegmina ochraceous, base brown; 8×4 mm. **falco**

- 10(5). Posterior process long as tegmina, arcuate and sinuate, basal half thick, apical half slender distant from tegmina, swelling beneath touching apex of scutellum; suprahumeral acute, inconspicuous; tegmina pale yellow, base darker; pronotum tumid, luteus, metopidium rugose; 7×4 mm. **luteus**

LIST OF SPECIES

- zonatus** Stål, Hemip. Phil. p. 728. (1870). Philippines.
suffultus Distant, Faun. Brit. Ind. iv, p. 24, fig. 22. (1908). Bombay, India.
capra Fabricius, Ent. Syst. Suppl. p. 514. (1798). Tranquebar, India.
chloroticus Fairmaire, Ann. Soc. Ent. Fr. (2), ix, p. 86. (1851); Walker, Ins. Saund. Hom. p. 82. (1858). Madrid, Spain; South France.
walkeri Funkhouser, Cat. Hom. p. 338. (1927). Spain.
falco Buckton, Mon. Memb. p. 243, pl. 56, fig. 2. (1903); Funkhouser, Phil. Jour. Sci. x, p. 377, pl. 1, fig. 5. (1915). Malinao, Philippines.
luteus Buckton, Mon. Memb. p. 244, pl. 56, fig. 5. (1903). Adelaide, S. Australia.

Aspasiana

- Distant, Ann. Mag. N. H. xviii, p. 26. (1916).

KEY TO SPECIES

- One shining black species with the tegmina subhyaline, apical area pale brown, base, costal, and radial veins black, legs dark brown; 8-9 mm.
 **impressa**

LIST OF SPECIES

- impressa** Walker, Jour. Linn. Soc. x, p. 192. (168). New Guinea.
carbonaria Distant, Ann. Mag. N. H. xviii, p. 27. (1916). New Guinea.

Polonius

- Distant, Ann. Mag. N. H. xviii, p. 291. (1916).

KEY TO SPECIES

- 1(2). Black; posterior process substraight, tip just passing apex of clavus, tips of suprahumeral acute; tegmina castaneous, base and costal cell black; 7.5×4 mm. **biseratensis**
 2(1). Head longer than broad, finely punctate, hardly pubescent, blackish brown, base highly arched; eyes globular, yellowish gray; ocelli nearer to and even with upper margins of eyes a short carina between; margins of genae acutely angulate below eyes, a small lobule each side of clypeus, the latter short, rounded below margins of genae. Pronotum blackish brown, weakly yellow pubescent,

base deeply impressed each side, convex in front, median carina strongly percurrent subfoliaceous on the disk, (in the type there is a short carina each side extended on the disk from the median carina obliquely backward); humerals triangular, sub-prominent; suprahumeral short, triangular, tricarinate, upper surface irregularly carinate, lightly curved upward and outward, tips blunt, recurved; posterior process slender from base which is slightly separated from the scutellum, basal third straight, middle third obliquely elevated, apical third horizontal and very slender distant from margins of and about as long as the tegmina. Scutellum visible. Tegmina two and a half times longer than broad, ovate, subhyaline, finely wrinkled and punctate, base broadly and costal cell opaque brown; two unequal discal and five apical cells their veins curved inwardly; clavus with margins parallel, two veins the exterior vein curved to inner margin behind middle, apex obliquely truncate. Wings with four apical cells. Sides of chest unarmed, legs simple, femore black, tibiae and tarsi brown, not pilose. Type, female, long. 5 mm., lat. int. sum. corn. 2 mm. (*Froggatt*) **froggatti** new species.

It differs from *biseratensis* in size, color, blunt tips of suprahumeral, longer sinuate posterior process, legs not pilose, and habitat. (Coll. F. W. G.)

LIST OF SPECIES

biseratensis Distant, Ann. Mag. N. H. xviii, p. 291. (1916). Bisert, Siamese Malay State.

froggatti new species, supra. Tweed R., N. S. W., Australia.

Imporcitor

Distant, Faun. Brit. Ind. vi, App. p. 157. (1916).

KEY TO SPECIES

One pale brownish species, suprahumeral and two frontal spots black, posterior process ochraceous, brown spot at base and middle, legs piceous; tegmina opaque yellow, basal area, two transverse bands and apical markings piceous; 7 × 3 mm. **typicus**

LIST OF SPECIES

typicus Distant, Faun. Brit. Ind. vi, App. p. 157, fig. 116. (1916). Nilgiri Hills, India.

Otinotus

Buckton, Mon. Memb. p. 232. (1903); *Convector* Distant, Faun. Brit. Ind. vi, App. p. 153. (1916).

(To be continued)